

## Report Guidelines for Experiment #1 (Pipet Calibration)

**(I) On-line Technique Videos & Resources For This Experiment**

Click on the title below to download the video (require [Real Player](#))

- (1) [Laboratory Safety](#) (this video was shown on the first day of the lab)
- (2) [Use of a Pipet](#)

If you have trouble downloading the videos, go to the following Web site and click on the appropriate title to download the video.

<http://oid.ucla.edu/Webcast/Chemistry/>

[Guides for Writing Lab Reports](#)

[Significant figures](#)

[Pictures of common laboratory glassware for 20L](#) (download time may varies depending on the speed of your internet connection)

[Pictures of common laboratory equipment for 20L](#) (download time may varies depending on the speed of your internet connection)

**(II) Pre-lab Report Guideline**

*Pre-lab report is due at the beginning of the lab section. Refer to the lab schedule for due date. Pre-lab report MUST be written inside your LAB NOTEBOOK.*

*IMPORTANT: Make sure that you follow the proper laboratory safety protocol (refer to the course syllabus) BEFORE going to the lab. Please also make sure that you show up to the lab on time. If you fail to show up on time, your space in the lab will be given to a student on the waiting list and you will have to drop the class.*

*Chem 20L is an IMPACTED course. Last day to drop the class is Friday (October 13)*

- (i) Title of the experiment
- (ii) Reference (i.e. complete reference of the experiment including title of the lab manual, author, edition and page number of the experiment in the manual etc.). Include any changes to the procedure that you know you will make.
- (iii) Short introduction (Summarize in a few sentences about the background and the goal of the experiment. Outline the kinds of technique that you will use in the experiment)
- (iv) Procedures (Flowchart Format - no more than one page long)  
**ONLY construct flowchart for the "Calibration of 10 mL Volumetric Pipet".**

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**(II) Pre-lab Report Guideline (Continued)**

- (v) Pre-lab Assignment (Refer to your lab manual page 40)

*Note: % error in the lab manual refers to % relative error.*

*Read page 22-25 of the lab manual and the lecture guide BEFORE you start working on the study questions.*

**Compete the following questions ONLY: (Must show all work for FULL credit)**

**2b, 2d, 2f, 3, 4b, 4d, 5 (only for the assigned ones in question 4), 6c**

*Your answers to the study questions should have the appropriate units and significant figures. Refer to previous page for on-line resource for significant figures.*

- (vi) Data/Observations  
**(Start a NEW page in your notebook for this section)**

Set up Data tables but leave blank. You will complete this part during your lab section.

**MSDS information is NOT required for this experiment.**

**Report Guidelines for Experiment #1(Pipet Calibration)**

Refer to laboratory syllabus for the due date of the post-lab report. Post-lab report **MUST** be written inside your LAB NOTEBOOK.

**This is an INDIVIDUAL report**

**(III) Post-lab Report Guideline**

(A) Organize data into tabular form (i.e recopy your data into table format)

**(B) Volumetric Pipet**

- Calculation of the true weights delivered for the 10-mL pipet for all 3 trials  
(refer to the example on page 39)

- Calculation of the pipet volume delivered for all 3 trials (follow example on page 39)

- Calculation of the relative average deviation (%RAD) for the volume delivered by the pipet (see example on pages 22-25)

**NO NEED TO COMPLETE THE SECTION UNDER "AIR-DISPLACEMENT PIPETTER" (see bottom of page 41).**

(C) Identify three actions that you can take to reduce your risk of a harmful accident in the chemistry laboratory.

(D) Conclusion – summarize results and comments on %RAD of the pipet volumes.